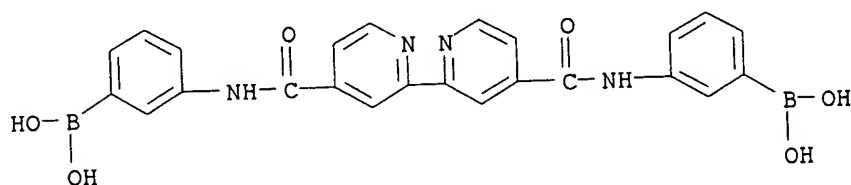
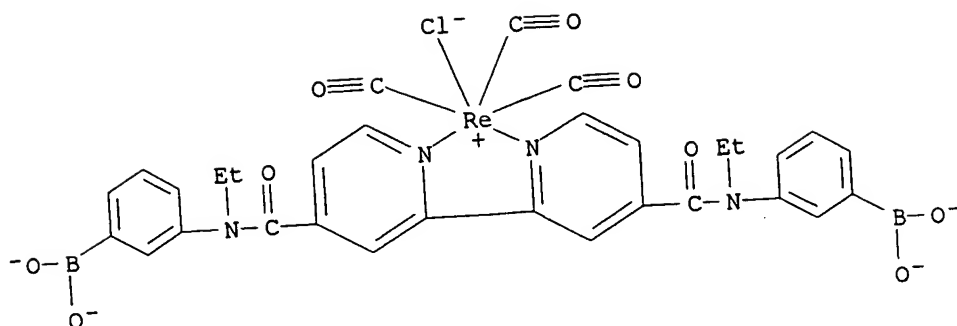


10.660790

ACCESSION NUMBER: 2000:74450 CAPLUS
 DOCUMENT NUMBER: 132:334675
 TITLE: Re-investigation of optical sensing properties of boronic-acid-appended ReI complexes for **saccharides**
 AUTHOR(S): Mizuno, Toshihisa; Fukumatsu, Takayuki; Takeuchi, Masayuki; Shinkai, Seiji
 CORPORATE SOURCE: Graduate School of Engineering, Department of Chemistry & Biochemistry, Kyushu University, Fukuoka, 812-8581, Japan
 SOURCE: Perkin 1 (2000), (3), 407-413
 CODEN: PERKF9
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A no. of unanswered questions occurred to us upon reading a communication by Yam and Kai which had reported optical sensing properties of a boronic-acid-appended ReI complex for **saccharides**. Careful re-exam. has disclosed that the pKa-value proposed by them (5.9) is wrong and that the **saccharide**-binding mode at pH above the pKa is totally different from that at pH below the pKa. The absorption spectral change, which reflects an sp²-to-sp³ boron hybridization change induced by the **saccharide** complexation, was obsd. only at pH below the pKa, the CD band, which reflects the formation of 1:1 cyclic complexes, appeared only at pH above the pKa. The results imply that the optimum pH should be carefully selected for the precise optical sensing of **saccharides**.
 IT **267660-74-2P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (re-investigation of optical sensing properties of boronic-acid-appended Re(I) complexes for monosaccharides)
 RN 267660-74-2 CAPLUS
 CN Boronic acid, [[2,2'-bipyridine]-4,4'-diylbis(carbonylimino-3,1-phenylene)]bis- (9CI) (CA INDEX NAME)

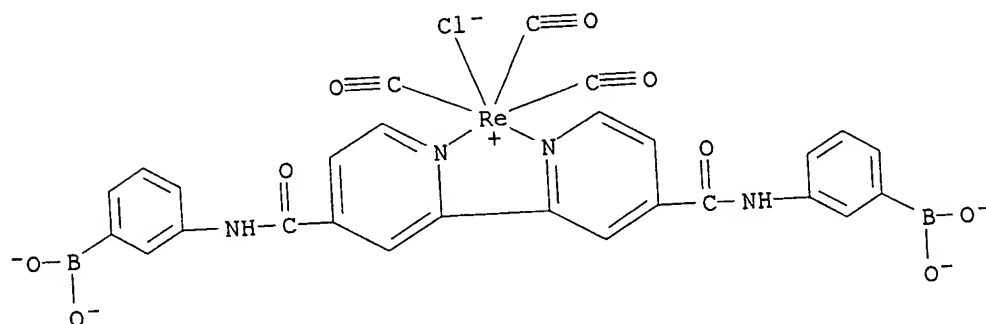




● 4 H⁺

1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L16 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2003 ACS
 RN 203052-35-1 REGISTRY
 CN Rhenate(4-), [[[[[2,2'-bipyridine]-4,4'-diyl-.kappa.N1,.kappa.N1']bis(carbonylimino-3,1-phenylene)]bis[boronato]](4-)]tricarbonylchloro-, tetrahydrogen, (OC-6-33)- (9CI) (CA INDEX NAME)
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 CI CCS
 SR CA
 LC STN Files: CA, CAPLUS

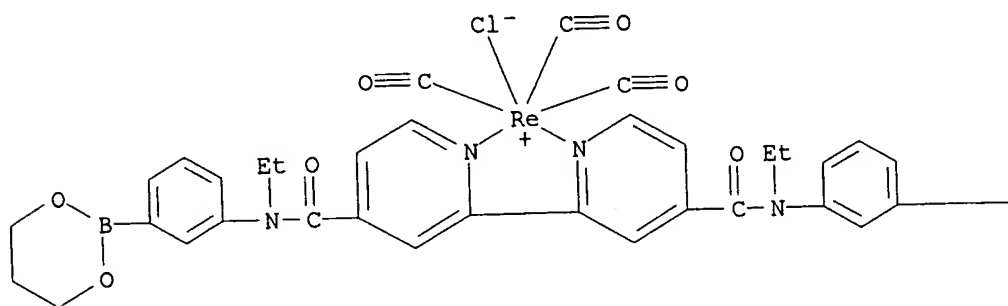


● 4 H⁺

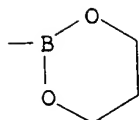
2 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

RN 267873-57-4 REGISTRY
 CN Rhenium, [N,N'-bis[3-(1,3,2-dioxaborinan-2-yl)phenyl]-N,N'-diethyl[2,2'-bipyridine]-4,4'-dicarboxamide-.kappa.N1,.kappa.N1']tricarbonylchloro-, (OC-6-33)- (9CI) (CA INDEX NAME)
 MF C37 H36 B2 Cl N4 O9 Re
 CI CCS
 SR CA
 LC STN Files: CA, CAPLUS

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1957 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L16 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2003 ACS
 RN 267873-56-3 REGISTRY
 CN Rhenate(4-), [[[[[2,2'-bipyridine]-4,4'-diyl-.kappa.N1,.kappa.N1')bis[carbonyl(ethylimino)-3,1-phenylene]]bis[boronato]](4-)]tricarbonylchloro-, tetrahydrogen, (OC-6-33)- (9CI) (CA INDEX NAME)
 MF C31 H24 B2 Cl N4 O9 Re . 4 H
 CI CCS
 SR CA
 LC STN Files: CA, CAPLUS